

B1
Coul 10

responsive to a determination that the operation may be activated,

11

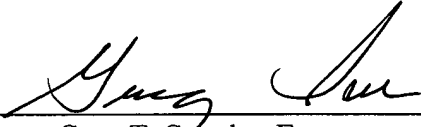
enabling activation of the event at the predetermined time.

REMARKS

Applicants are hereby amending the application to correct a claim numbering error. The application omitted Claim 39. Thus, Claim 40 through Claim 69 are renumbered as Claim 39 through Claim 68. Additionally, claim references within these renumbered claims are also corrected to account for the new numbering scheme. Applicants believe that no new matter is introduced by the amendments presented. Accordingly, examination of this application as amended is hereby respectfully requested.

Respectfully submitted,
SHA LI ET AL.

Dated: 11/14/02

By: 

Greg T. Saeoka, Esq.
Registration No. 33,800
Fenwick & West LLP
Two Palo Alto Square
Palo Alto, CA 94306
(650) 858-7194 (Phone)
(650) 494-1417 (Fax)

1 **VERSION WITH MARKINGS TO SHOW CHANGES MADE**

2

3 **In the Claims:**

4 [40] 39. A computer-implemented method to synchronize operation of one or
5 more devices at associated predetermined times, said method comprising:
6 retrieving data associated with a plurality of predetermined events to be
7 performed by one or more of the devices;
8 associating a current event in turn with the predetermined events;
9 responsive to the current event being associated with a particular event of
10 the predetermined events,
11 transmitting a first command to the devices;
12 each of the devices receiving the first command transmitted;
13 each of the devices interpreting the first command to determine
14 one or more intended devices where the particular event
15 can be performed;
16 transmitting a second command to the devices;
17 each of the devices receiving the second command transmitted;
18 and
19 responsive to the second command received, the intended devices
20 enabling activation of the particular event at the
21 predetermined time.

1 [41] 40. The computer-implemented method according to Claim (40) 39, wherein
2 each of the devices receiving the first command transmitted comprises:

3 awaiting the first command to be received from the host device; and
4 determining whether the first command has been received.

1 [42] 41. The computer-implemented method according to Claim (41) 40, wherein
2 determining whether the first command has been received comprises:
3 accepting the first command comprising the particular event selected from
4 a list of the predetermined events each being associated with a
5 time-tag in increasing order.

1 [43] 42. The computer-implemented method according to Claim (41) 40,
2 wherein determining whether the first command has been received comprises:
3 accepting the first command comprising the particular event selected in
4 sequential order from a list of the predetermined events each being
5 associated with a time-tag in increasing order.

1 [44] 43. The computer-implemented method according to Claim (41) 40,
2 wherein determining whether the first command has been received comprises:
3 accepting the first command comprising the particular event selected in a
4 predetermined order from a list of the predetermined events each
5 being associated with a time-tag in increasing order.

1 [45] 44. The computer-implemented method according to Claim (40) 39, wherein
2 each of the devices interpreting the first command to determine one or more intended
3 devices where the particular event can be performed comprises:

4 extracting a parameter from the first command, the parameter representing
5 a module identifier; and
6 matching the module identifier with a predetermined identifier
7 representing a device identification parameter associated with
8 corresponding one of the devices.

1 [46] 45. The computer-implemented method according to Claim (45) 44, further
2 comprising:
3 extracting the particular event, the predetermined time, and an event
4 enable indicator from the first command.

1 [47] 46. The computer-implemented method according to Claim (46) 45, wherein
2 extracting the predetermined time comprises:
3 determining a time-stamp associated with the predetermined time.

1 [48] 47. The computer-implemented method according to Claim (47) 46, wherein
2 enabling activation of the particular event at the predetermined time comprises:
3 continuously incrementing a current clock count; and
4 causing activation of the event when the time-stamp matches the current
5 clock count.

1 [49] 48. The computer-implemented method according to Claim (40) 39, wherein
2 each of the devices receiving the second command transmitted comprises:
3 awaiting the second command to be received from the host device; and
4 determining whether the second command has been received.

1 [50] 49. The computer-implemented method according to Claim (40) 39, wherein
2 the first command comprises a schedule command.

1 [51] 50. The computer-implemented method according to Claim (40) 39, wherein
2 the second command comprises a valid signal indicating that the event may be activated
3 as intended.

1 [52] 51. A computer-implemented method of enabling activation of at least one
2 event to be performed at a predetermined time as controlled by a host device, the method
3 comprising:

4 a step for receiving a first command from the host device;
5 a step for interpreting the first command including data to extract a
6 parameter from the data;
7 a step for determining whether the parameter matches a predetermined
8 identifier;
9 responsive to the parameter matching the predetermined identifier, a step
10 for receiving a second command from the host device, the second
11 command validating the activation of the event; and
12 responsive to the second command being received, a step for causing the
13 activation of the event at the predetermined time.

1 [53] 52. A method of controlling at least one operation to be performed at a
2 predetermined time, the method comprising:

3 a step for receiving a first command transmitted from a host device;

4 a step for interpreting the first command to synchronize performance of
5 the operation as intended;
6 a step for receiving a second command transmitted from the host device;
7 a step for interpreting the second command to determine that the operation
8 may be activated; and
9 responsive to a determination that the operation may be activated, a step
10 for causing activation of the event at the predetermined time.

1 [54] 53. A video processing system, comprising:
2 a processor coupled to a controller, said controller communicatively
3 coupled to a first bus;
4 a host device transmitting signals to the first bus, the host device
5 comprising a plurality of inputs communicatively coupled to the
6 controller, a first output transmitting schedule commands to the
7 devices, and a second output transmitting a validation command to
8 the devices; and
9 one or more devices coupled to receive the signals from the first bus.

1 [55] 54. The video processing system according to Claim (54) 53, further
2 comprising:
3 a front-end subsystem coupled to the first bus; and
4 coupled to the first bus, a back-end subsystem.

1 [56] 55. The video processing system according to Claim (55) 54, wherein the
2 front-end subsystem includes the processor and the host device.

1 [57] 56. The video processing system according to Claim (56) 55, wherein the
2 front-end and back-end subsystems includes the plurality of devices.

1 [58] 57. The video processing system according to Claim (54) 53, wherein the
2 host device includes:

3 an interface receiving commands from the controller; and
4 communicatively coupled to the interface, a schedule storage element
5 including a plurality of predetermined events to be performed by
6 one or more of the devices in an operational cycle, and
7 corresponding time-tags in increasing order.

1 [59] 58. The video processing system according to Claim (58) 57, further
2 comprising:

3 coupled to the interface, a schedule data element enabling communication
4 of events from the schedule storage element along the first bus;
5 and
6 coupled to the interface, a schedule access element enabling the controller
7 access to the schedule storage element.

1 [60] 59. The video processing system according to Claim (58) 57, further
2 comprising:

3 a current event indicator specifying one of the events stored in the
4 schedule storage element.

1 [61] 60. The video processing system according to Claim (58) 57, wherein each
2 of the predetermined events is 8 bits, and each of the time-tags is 12 bits.

1 [62] 61. The video processing system according to Claim (61) 60, wherein each
2 of the predetermined events includes a module identifier, the module identifier
3 comprising four of the 8 bits of each predetermined event.

1 [63] 62. The video processing system according to Claim (54) 53, wherein said
2 system is included in one of a PC camera, digital camera, personal digital assistant
3 (PDA), multimedia cellular mobile phone, digital video recorder (DVR), and multimedia
4 device and appliance.

1 [64] 63. The video processing system according to Claim (54) 53, wherein said
2 system is included in one of an SoC and an ASIC applications.

1 [65] 64. A video processing system enabling activation of at least one event to be
2 performed at a predetermined time as controlled by a host device, comprising:

3 processor means coupled control means communicatively coupled to a
4 first bus;
5 host means transmitting signals to the first bus; and
6 one or more client means coupled to receive the signals from the first bus.

1 [66] 65. The video processing system according to Claim (65) 64, wherein the
2 host means comprises:

3 interface means receiving commands from the control means; and
4 communicatively coupled to the interface means, a scheduler means
5 storing a plurality of predetermined events to be performed by one
6 or more of the client means in an operational cycle, and
7 corresponding time-tags in increasing order.

1 [67] 66. The video processing system according to Claim (66) 65, further
2 comprising:
3 coupled to the interface means, schedule data means enabling
4 communication of events from the scheduler means along the first
5 bus; and
6 coupled to the interface means, schedule access means enabling the
7 control means access to the scheduler means.

1 [68] 67. A computer program product for synchronizing control of one or more
2 devices in a system during an operational cycle, the computer program product stored on
3 a computer readable medium, and adapted to perform operations of:
4 retrieving data associated with a plurality of predetermined event
5 commands to be performed by one or more of the devices in the
6 operational cycle;
7 associating a current event in turn with the predetermined event
8 commands; and
9 responsive to the current event being associated with a particular event
10 command of the predetermined event commands, enabling one or
11 more of the devices to perform the particular event command.

[69] 68. A computer program product for controlling at least one operation to be performed at a predetermined time, the computer program product stored on a computer readable medium, and adapted to perform operations of:

- receiving a first command transmitted from a host device;
- interpreting the first command to synchronize performance of the operation as intended;
- receiving a second command transmitted from the host device;
- interpreting the second command to determine that the operation may be activated; and
- responsive to a determination that the operation may be activated, enabling activation of the event at the predetermined time.